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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,219	02/21/2002	Mehrdad Abrishami	01-688	9745

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EXAMINER	
LEE, ANDREW CHUNG CHEUNG	
ART UNIT	**PAPER NUMBER**
2664	

DATE MAILED: 03/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/080,219	ABRISHAMI ET AL.	
	Examiner	Art Unit	
	Andrew C. Lee	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 February 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Regarding Figures 2 and 3 , pages 8 –9, the subject matters of 'the calling terminal and the answerer terminal disclosed in the specification while the figures the term originating vbd and terminating vbd were disclosed. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character/subject matter(s) not mentioned in the description: regarding Figure 2, the subject matter "CI". Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:

- Page 9, line 9, there is a typo "V.32is" should be corrected as V.32bis.
- Regarding claim 1, page 12, line 4, there is a typo "dat" should be corrected as data.
- Regarding claim 13, page 13, lines 2, there is a typo "internal" should be corrected as interval.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1 – 12, 16 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabenko et al. (US 6765931 B1) in view of Cave et al. (US 6996094 B2).

Regarding claims 1, 3, Rabenko et al. disclose the limitation of a method of processing Voice band Data in a communication path in a telecommunication network, said

communication path consisting of a plurality of Voice band Data relay gateways (Fig. 2, elements 11a, 11b, Network gateways, 12, Head end), including a first Voice band Data relay gateway, a last Voice band Data relay gateway, and at least one voice band data relay gateway between the first and last Voice band Data relay gateways (column 91, lines 60 – 67, column 92, lines 1 – 4; sending network gateway, CMTS, the other end of the CMTS via a network gateway), said method comprising: detecting the at least one Voice band Data relay gateway between the first and last Voice band Data relay gateways; and Rabenko et al. do not disclose expressly disabling the at least one Voice band Data relay gateway between the first and last Voice band Data relay gateways, whereby the at least one Voice band Data relay gateway between the first and last Voice band Data relay gateways does not encode and decode the Voice band Data. Cave et al. disclose the limitation of disabling the at least one Voice band Data relay gateway between the first and last Voice band Data relay gateways, whereby the at least one Voice band Data relay gateway between the first and last Voice band Data relay gateways does not encode and decode the Voice band Data (abstract, lines 4 – 9; column 6, lines 60 – 67, Fig. 4a, element 800, 'not required to provide data format translation' implies encoding and decoding not required). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rabenko et al. to include disabling the at least one Voice band Data relay gateway between the first and last Voice band Data relay gateways, whereby the at least one Voice band Data relay gateway between the first and last Voice band Data relay gateways does not encode and decode the Voice band Data such as that taught by Cave et al. in order to provide the repeated conversions from one data format

to another data format avoided because the media is sent directly from source to destination (as suggested by Cave et al., see column 10, lines 48 – 50).

Regarding claim 2, Rabenko et al. disclose the limitation of a method as recited in claim 1, further comprising using said first and last Voice band Data relay gateways to encode and decode the Voice band Data (column 99, lines 53 – 64).

Regarding claim 4, Rabenko et al. disclose the limitation of a method as recited in claim 1, further comprising initiating a probing sequence to detect the presence of Voice band Data (column 101, lines 9 – 16).

Regarding claim 5, Rabenko et al. disclose the limitation of a method as recited in claim 1, wherein the communication network includes a calling terminal and an answerer terminal (column 101, lines 9 – 16), and the method provides that a probing sequence is initiated by the calling terminal to detect the presence of a Voice band Data relay (column 101, lines 17 – 27).

Regarding claim 6, Rabenko et al. disclose the limitation of a method as recited in claim 5, further comprising initiating the probing sequence via Non-standard facilities using the calling terminal (column 105, lines 21 – 43, recited from applicant's specification page 9, lines 1 – 3, 'The calling terminal does not support V.8 calling sequence (for example a V.32bis modem terminal).

Regarding claim 7, Rabenko et al. disclose the limitation of a method as recited in claim 1, wherein the telecommunication network is configured to provide communication in a pre-determined protocol, and the protocol includes a non-standard information field following standard fields in each Call Menu signal and Joint Menu signal sequence to define information beyond what is defined in the protocol (Fig. 50, column 106, lines 40 – 67, generate a CM

indication, line 50; responses by transmitting a JM sequence, line 54; non-standard, lines 64 – 67), said method further comprising having a gateway receive a Call Menu signal which contains standard fields, and transmit a Joint Menu signal with information relating to the presence and capability of the Joint Menu signal contained in the non-standard information field (Fig. 50, V.34 Handshaking Sequence, column 106, lines 40 – 67; V.32bis Handshaking Sequence, column 105, lines 21 – 67).

Regarding claim 8, Rabenko et al. disclose the limitation of a method as recited in claim 7, wherein the protocol is V.8 (column 101, lines 19 – 22).

Regarding claim 9, Rabenko et al. disclose the limitation of a method as recited in claim 1, further comprising modulating an answer tone with a signature pattern at a pre-determined frequency (column 46, lines 15 – 21, lines 35 – 42; V.29, 1700Hz).

Regarding claim 10, Rabenko et al. disclose the limitation of a method as recited in claimed further comprising modulating the answer tone such that the modulation is minimally intrusive to network echo cancellers, which use the answering tone as a means to get disabled, when the tone is detected in either direction in the communication path (Fig. 19, column 32, lines 14 – 35).

Regarding claim 11, Rabenko et al. disclose the limitation of a method as recited in claim 10, wherein the communication network includes a calling terminal and an answerer terminal, further comprising providing that the gateway which detects the modulated answer tone actively mutes signals from the calling terminal toward the answerer terminal (column 32, lines 14 – 35).

Regarding claim 12, Rabenko et al. disclose the limitation of a method as recited in claim 11, further comprising providing that upon detection of the calling tone, a gateway sends a reply tone to a gateway transmitting the modulated tone (column 105, lines 60 – 66).

Regarding claim 16, Rabenko et al. disclose the limitation of a method as recited in claim 1, further comprising having the gateways achieve a common link rate during modem training (column 104, lines 59 – 67; column 105, lines 1 – 4).

Regarding claim 17, Rabenko et al. disclose the limitation of a method as recited in claim 16, further comprising having a gateway retrain at a lower rate in order to achieve a common link rate along the communication path (column 105, lines 14 – 20).

Regarding claim 18, Rabenko et al. disclose the limitation of a method as recited in claim 1, further comprising padding the data to allow transmission into a higher speed link rate (column 103, lines 40 – 55).

Regarding claim 19, Rabenko et al. disclose the limitation of a method as recited in claim 1, further comprising scrambling demodulated data in one direction and descrambling the data in an opposite direction, in order to insure that network echo cancellers remain disabled (column 32, lines 36 – 47; column 107, lines 56 – 62).

Regarding claim 20, Rabenko et al. disclose the limitation of a method as recited in claim 1, further comprising transmitting a fixed non-scrambled pattern along the communication path followed by a fixed length message containing a command (column 104, lines 59 – 67, the element 'unscrambled binary ones signal (USB1) indications).

6. Claims 13, 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabenko et al. (US 6765931 B1) and Cave et al. (US 6996094 B2) as applied to claims 1 – 12, 16 – 20 above, and further in view of Normand et al. (US 5867487).

Regarding claim 13, Rabenko et al. and Cave et al. do not disclose expressly the limitation of a method as recited in claimed wherein the reply signal is a single tone at a pre-determined frequency for a pre-determined time interval. Normand et al. disclose the limitation of a method as recited in claimed wherein the reply signal is a single tone at a pre-determined frequency for a pre-determined time interval (Fig. 27b, element 'detection of 100ms at 1800Hz'; column 15, lines 14 – 22; column 24, lines 1 – 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rabenko et al. and Cave et al. to include a method as recited in claimed wherein the reply signal is a single tone at a pre-determined frequency for a pre-determined time interval such as that taught by Normand et al. in order to be capable of managing preferable more than one modulation, and preferably, with respect to the calling unit of managing either two modulations V32/V27ter or V27ter/V29 or the three modulations V23/V27ter/V29 (as suggested by Normand et al., see column 2, lines 47 – 50).

Regarding claim 14, Rabenko et al. and Cave et al. do not disclose expressly the limitation of a method as recited in claimed wherein the time interval does not exceed 100ms. Normand et al. disclose expressly the limitation of a method as recited in claimed wherein the time interval does not exceed 100ms. (Fig. 27b, element "detection of 100ms at 1800Hz" ; column 15, lines 14 – 22; column 24, lines 1 – 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rabenko et al. and Cave

et al. to include a method as recited in claimed wherein the time interval does not exceed 100ms such as that taught by Normand et al. in order to be capable of managing preferable more than one modulation, and preferably, with respect to the calling unit of managing either two modulations V32/V27ter or V27ter/V29 or the three modulations V23/V27ter/V29 (as suggested by Normand et al., see column 2, lines 47 – 50).

Regarding claim 15, Rabenko et al. and Cave et al. do not disclose expressly the limitation of a method as recited in claimed wherein the reply signal consists of the 1800 Hz tone in addition to another signal with lower amplitude. Normand et al. disclose expressly the limitation of a method as recited in claimed wherein the reply signal consists of the 1800 Hz tone in addition to another signal with lower amplitude (Fig. 27b, element 'detection of 100ms at 1800Hz'; column 15, lines 14 – 22; column 24, lines 1 – 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rabenko et al. and Cave et al. to include a method as recited in claimed wherein the reply signal consists of the 1800 Hz tone in addition to another signal with lower amplitude such as that taught by Normand et al. in order to be capable of managing preferable more than one modulation, and preferably, with respect to the calling unit of managing either two modulations V32/V27ter or V27ter/V29 or the three modulations V23/V27ter/V29 (as suggested by Normand et al., see column 2, lines 47 – 50).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ACL

Feb 21, 2006

RICKY Q. NGO
SUPERVISORY PATENT EXAMINER